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Time Server

This note describes the Time Server protocol, as currently implemented on ITS hosts (i.e. MIT-(AI/ML/MC/DMS)). The idea is to provide a site-independent, machine readable date and time in as efficient and swift a manner as possible; its motivation arises from the fact that not all systems have a date/time clock, and all are subject to occasional human or machine error. The use of time-servers makes it possible to quickly confirm or correct a system's idea of the time, by making a brief poll of several independent sites on the network.

In particular the network time server works as follows:

S: Listen on socket 37 (45 octal).

U: Connect to socket 37 [not ICP].

S: Send the time as a 32 bit binary number.

U: Close the connection.

S: Close the connection.

Note that this is not a normal ICP sequence. Rather, instead of sending a 32-bit socket number to reconnect to, the server returns a 32-bit time value and closes the connection. If the server is unable to determine the time at its site, it should either refuse the connection or close it without sending anything.

The time is the number of seconds since 0000 (midnight) 1 January 1900 GMT, such that the time 1 is 12:00:01 am on 1 January 1900 GMT; this base will serve until the year 2036. As a further example, the most recent leap year as of this writing began from the time 2,398,291,200 which corresponds to 0000 1 Jan 1976 GMT.